

**University Collaborations for Safeguards Education  
LANL/TAMU NGSi Human Capital Development Conference  
Los Alamos National Laboratory  
Draft Agenda**

**Day 1 – Monday August 10, 2009**

**8:00 – 8:30**

Registration

**8:30 – 9:00** Welcome and Introductions

Jim Doyle  
William Charlton

**9:00 – 10:00** Discussion of Workshop Objectives

- NGSi Overview, HCD Project Goals (15 min): Ed Wonder
- Faculty Goals and Resource Needs (45 min): William Charlton  
Doug Shaw

**10:00-10:15** Break

**10:15-12:00** Faculty Perspectives: Challenges and Approaches for Teaching Safeguards/Nonproliferation

- Perspectives from Law, Politics and International Affairs (50 min) Joe Pilat  
Michael Rosenthal  
Jim Doyle
- Perspectives from Science and Engineering (50 min) Jason Hayward  
Gary Cerefice

**12:00- 1:30** Lunch

**1:30- 3:00** Descriptions of Existing Courses:

- Graduate Level (45 min) Jim Finucane  
Sara Pozzi
- Undergraduate Level (45 min) Joe Pilat  
Kathleen Trauth

**3:00-3:15** Break

**3:15 – 4:45** Brief Descriptions of the NGSi HCD Projects

- LANL/TAMU summer course (15 min): Jim Doyle
- MIIS/LLNL summer course (15 min): Elena Sokova

- LLNL Lecture Series and Exercise (15 min) Arden Dougan
- ORNL NDA Course and NGS Workshop (15 min): Bernie Kirk
- BNL Summer Course (15 min): Michael Rosenthal
- PNNL Activities (15 min) Carrie Mathews

**4:45-5:00** Summary Day 1

Jim Doyle

## **Day 2 – Tuesday August 11, 2009**

**9:00-10:30** Nuclear Safeguards as Multidisciplinary

- Overview of Safeguards History and Mission (30 min): Jim Tape
- Technical Fundamentals of Safeguards (60 min) Steve Tobin (30 min)  
Brian Boyer (30 min)

**10:30-10:45** Break

**10:45 – 12:30**

- Safeguards learning objectives and reference resources: Tom Shea  
Brian Boyer
- Lecture-based, lab-based and distance learning tools for safeguards education:

William Charlton  
Fred Wehling  
Jack Brenizer

**12:30 -2:00** Lunch

**2:00-3:30**

- Panel on development of curricula bridging natural and social science departments:

Doug Shaw  
Man-Sung Yim  
Jim Doyle

**3:30-3:45** Break

**3:45 – 4:45** Roundtable on multidisciplinary approaches to safeguards education

**4:45-5:00** Summary of Day 2

Jim Doyle

### **Day 3 – Wednesday August 12, 2009**

**9:00 – 10:30** Presentation of reading and exercise materials

Mike Rosenthal  
Ross Williams  
Fred Wehling

**10:30-10:45** Break

**10:45-12:00**

- Break into small groups to discuss course materials, assignments, and exercises

**12:00-1:30** Working Lunch: LANL Student Technical Discussion and Poster Session

**1:30-3:00**

- Panel on learning objectives for graduate vs. undergraduate level courses and for introductory-advanced modules

Glenn E. Sjoden  
Sudarshan Loyalkas

**3:00-3:15** Break

**3:15-4:30**

- Panel discussion on design of degree options, concentrations or certificate programs in nuclear safeguards and the role of University centers
  - What is needed to sustain these?
  - What should be common elements of a certificate program? (so there is some comparability of certificates awarded by different universities)

William Charlton  
(TBD)

**4:30-5:00**

- Provide faculty with contact information of lab and subject matter experts available to provide guest lectures.
- Summary and wrap-up

**6:00- 8:00** Working Dinner with Speakers

#### **Day 4 – Thursday August 13, 2009**

- Tours and Technical Demonstrations at LANL Facilities
  - Bldg. 27 Schoolhouse – Johnna Marlow
  - UNARM – Mike Browne
  - NDA Lab – Steve Tobin, LANL Students

#### **12:00- 1:45 Lunch – Otowi Cafeteria**

- SLD Demo – Jim West, Eric Rauch
  - Virtual Reality Tour – Birchard Hayes, Kelly Michel
  - Tabletop Open Source Demo – Rick Wallace, Frank Pabian
- Gather feedback from faculty attending the training session for use in improving future efforts. How can NNSA best support faculty development of courses, certificate programs, etc.? What concrete action steps will be most helpful?